

Application No. 10/006,461
Amendment dated March 8, 2005
Reply to Office Action of November 22, 2004

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently amended) A fingerprint capture device comprising:
 - a memory comprised of a plurality of memory cells wherein each memory cell has a corresponding electrical device;
 - a fingerprint contact surface comprised of an epoxy material disposed substantially coplanar to the memory wherein the fingerprint contact surface has a plurality of conductive paths formed through the fingerprint contact surface and wherein at least some of the conductive paths are substantially directly conductively coupled to at least some of the corresponding electrical devices and wherein at least some of the conductive paths are comprised of conductive spheres wherein at least a portion of some of the conductive spheres physically contacts the memory, and wherein at least a portion of some of the conductive spheres is physically exposed to an exterior of the fingerprint contact surface.
2. (Original) The fingerprint capture device of claim 1 wherein the memory comprises a solid state memory.
3. (Original) The fingerprint capture device of claim 2 wherein the solid state memory comprises a random access memory.
4. (Original) The fingerprint capture device of claim 3 wherein the random access memory comprises a static random access memory.
5. (Original) The fingerprint capture device of claim 2 wherein the corresponding electrical device comprises a charge storage device.

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6. (Original) The fingerprint capture device of claim 1 wherein the memory includes a plurality of conductive surfaces formed on an exterior surface thereof.
7. (Original) The fingerprint capture device of claim 6 wherein some of the plurality of conductive surfaces are each electrically coupled to a corresponding one of the corresponding electrical devices.
8. (Original) The fingerprint capture device of claim 6 wherein some of the plurality of conductive surfaces are electrically coupled to a common rail.
9. (Original) The fingerprint capture device of claim 6 wherein some of the plurality of conductive surfaces are each electrically coupled to a corresponding one of the corresponding electrical devices and some of the plurality of conductive surfaces are electrically coupled to a common rail.
- 10-11. (Cancelled).
12. (Currently amended) The fingerprint capture device of claim ~~11~~ 1 wherein at least some of the conductive spheres present a substantial resistance to current flow.
13. (Original) The fingerprint capture device of claim 12 wherein at least some of the conductive spheres are comprised of nickel oxide.
- 14-16. (Cancelled)
17. (Currently amended) The fingerprint capture device of claim ~~11~~ 1 wherein at least a plurality of the conductive spheres have a diameter of approximately seven millionths of a meter.
- 18-31. (Cancelled)

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32. (Currently amended) A method for sensing and storing tactile impressions information comprising:

- providing a memory comprised of a plurality of memory cells wherein each memory cell has a corresponding electrical device;
- providing a contact surface disposed substantially coplanar to the memory wherein the contact surface has a plurality of conductive paths formed through the contact surface, by, at least in part, providing a contact surface disposed substantially coplanar to the memory wherein the contact surface has a plurality of conductive spheres disposed therein which conductive spheres comprise conductive paths, and wherein at least some of the conductive paths are substantially directly conductively coupled to at least some of the corresponding electrical devices;
- placing an object having a surface with asperities on the contact surface;
- simultaneously sensing and storing in the memory tactile impressions information regarding at least some of the asperities by discharging at least some of the electrical devices as correspond to locations where asperities directly contact the contact surface.

33. (Original) The method of claim 32 wherein providing a memory comprised of a plurality of memory cells wherein each memory cell has a corresponding electrical device includes providing a memory comprised of a plurality of memory cells wherein each memory cell has a corresponding charge storage device.

34. (Cancelled)

35. (Currently amended) The method of claim 34 32 wherein discharging at least some of the electrical devices includes discharging at least some of the electrical devices through at least some of the conductive spheres.

36. (Original) The method of claim 32 and further comprising dissipating electrostatic discharge within at least some of the conductive paths.

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37. (Original) The method of claim 32 and further comprising storing in the memory a reference set of data representing tactile impressions information against which subsequently sensed and stored tactile impressions information is to be compared.

38. (Original) A method for sensing and storing fingerprint information comprising:

- providing a memory comprised of a plurality of memory cells wherein each memory cell has a corresponding charge storage device and wherein the memory further includes a plurality of conductive pads disposed on a surface thereof such that some of the conductive pads are electrically coupled to at least one of the charge storage devices and some of the conductive pads are electrically coupled to a common rail;
- providing a contact surface formed at least in part of cured epoxy and being disposed substantially coplanar to the memory wherein the contact surface has a plurality of conductive spheres disposed at least partially within the contact surface and wherein at least some of the conductive spheres are conductively coupled to at least some of the conductive pads;
- placing an object having fingerprint features on the contact surface;
- simultaneously sensing and storing in the memory fingerprint information regarding at least some of the fingerprint features by discharging at least some of the charge storage devices as correspond to locations where fingerprint features directly contact the contact surface through a discharge path that includes a conductive pad as coupled to a charge storage device to be discharged, at least a first conductive sphere, the object, at least a second conductive sphere, and a conductive pad as coupled to the common rail.

39. (Original) The method of claim 38 wherein providing a contact surface having a plurality of conductive spheres includes providing a contact surface having a plurality of conductive spheres comprised of nickel oxide.

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40-43. (Cancelled).

44. (Currently amended) A method for sensing and storing tactile impressions information comprising:

- providing a plurality of discrete memory units, each of the memory units being comprised of a plurality of memory cells wherein each memory cell has a corresponding electrical device;
- providing a contact surface disposed substantially coplanar to at least some of the memory units wherein the contact surface has a plurality of conductive paths formed through the contact surface wherein the contact surface has a plurality of conductive spheres disposed therein which conductive spheres comprise conductive paths, and wherein at least some of the conductive paths are substantially directly conductively coupled to at least some of the corresponding electrical devices for a plurality of the memory units;
- placing an object having a surface with asperities on the contact surface;
- simultaneously sensing and storing in at least a plurality of the memory units tactile impressions information regarding at least some of the asperities by discharging at least some of the electrical devices as correspond to locations where asperities directly contact the contact surface.

45. (Original) The method of claim 44 wherein providing a plurality of discrete memory units, each of the memory units being comprised of a plurality of memory cells wherein each memory cell has a corresponding electrical device includes providing a plurality of discrete memory units, each of the memory units being comprised of a plurality of memory cells wherein each memory cell has a corresponding charge storage device.

46. (Cancelled)

47. (Currently amended) The method of claim 46 44 wherein discharging at least some of the electrical devices includes discharging at least some of the electrical devices through at least some of the conductive spheres.

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48. (Original) The method of claim 47 and further comprising dissipating electrostatic discharge within at least some of the conductive paths.

49-51. (Cancelled)